PSMC

Parts Standardization & Management Committee (PSMC) Spring Conference
McLean, VA
April 20-22, 2010

Dynamic Recrystallization (DRX) as the Mechanism for Sn Whisker Development: Model and Experiments
P.T. Vianco and J.A. Rejent, Sandia National Laboratories

Interface Flow Mechanism to Explain Tin Whisker Growth Using FIB Technology
Jing Cheng and James Li, University of Rochester
P.T. Vianco, Sandia National Laboratories

Real-time Studies of Whisker Growth : Trying to Understand the Stress, IMC and Whisker Connection
Prof. Eric Chason, Nitin Jadhav, Eric Buchovecky, Allan Bower and Sharvan Kumar
Brown University

Stress and IMC growth in annealed and reflowed Sn-Cu bilayers and their relation to whisker kinetics
Nitin Jadhav and Eric Chason - Brown University
Gordon Barr-EMC Corporation

A Synchrotron Micro-Diffraction Investigation of Crystallographic Texture of pure Sn, Sn-Cu, and Sn-Cu-Pb Films and its Effects on Whisker Growth
Pylin Sarobol, Aaron Pedigo, John Blendell, Carol Handwerker-Purdue University; Peng Su -Cisco

Indentation induced whisker formation
Michael Osterman, Danny Birndt, Alex Heronime, Sungwon Han and Lyudmyla Panashchenko
University of Maryland

Status whisker research efforts with JEITA
Prof. Katsuaki Suganuma
Osaka University

Tin Whisker Growth and the Structure Zone Model for Electroplated Tin
Aaron Pedigo, Pylin Sarobol, John Blendell, and Carol Handwerker - Purdue University

SEM Observation and EBSD Analysis of Straight and Kinked Sn Whiskers
Donald Susan, Joe Michael, Edward Webb III, Dick Grant, Bonnie McKenzie and Graham Yelton
Sandia National Laboratories

Effect of Soldering Method, Temperature, and Humidity on Whisker Growth on Lead-free Solders in the Presence of Flux Residue
Keith Sweatman, K. Howell, J. Masuda, T. Nozu, M. Koshi and T. Nishimura -Nihon Superior

Effects of Reflow Atmosphere and Flux on Sn Whisker Growth of Sn-

Tin Reflow for Tin Whisker Mitigation
George J.S. Chou* and Robert D. Hilty
Tyco Electronics Corporation

Tin Whisker Test Results for PCB Test Coupons with Immersion Tin Surface Finish
Dr. Martin Huehne , Natcharee Nitisantawakoop and Pakamas Ngamson - Celestica (Thailand) Limited

Application-Specific Tin Whisker Risk Assessment Algorithm- Update 2010
David Pinsky - Raytheon

A Case Study of Bismuth Whiskers in a Crystal Oscillator
Dr. Debasis Basak, L. H. Ponce and D.El. Boyarsky - Orbital Sciences Corporation

Tin Whiskers: A Test Method at the Electronic Board Level
JP. Michelet, Jannick Guinet and Carlos Perez - Schneider Electric

Whisker Bridging Risk Spacing Analysis of the back side of Quad Flat Packs
Dr. Stephan Meschter -BAE Systems

Risk of Whisker Induced Metal Vapor Arcs
Dr. Henning Liedecker NASA

Effectiveness of Conformal Coating in Mitigating Tin Whisker Induced Failures
Sungwon Han and Michael Osterman
University of Maryland

Measuring the mitigation capability of Conformal Coatings: Part 2
Dr. Chris Hunt and Martin Wickham - NPL

Tin Whisker Mitigated by Photonic Sintering for Sn-based Surface Finishes
Dr. Jamie Novak, Mohshi Yang, David Jiang-Applied Nanotech
Ahmed Amin and Michael Osterman – University of Maryland

Results of Mitigation Effectiveness Survey and Plans for GEIA-STD-0005-2 Revision
Dr. Anduin Touw - Boeing

Lead-Free Manhattan Project- Tin Whiskers Gap Analysis and Research Roadmap
David Pinsky - Raytheon

Tin Whisker Evaluation Status for Space Application
Norio Nemoto - JAXA

Center for Advanced
Life Cycle Engineering
4th International Symposium on Tin Whiskers
June 23-24, 2010
Samuel Riggs Alumni Center
University of Maryland
College Park, MD, USA

Scope

The Center of Advanced Life Cycle Engineering at the University of Maryland in collaboration with The
Institute of Scientific and Industrial Research (ISIR) at Osaka University is pleased to announce the call for
participation for the Fourth International Symposium on Tin Whiskers. Tin whiskers present a unique
challenge to the electronics industry. There have been numbers of electronics failures in the market
caused by tin whiskers since 1940s. After 2000, as a result of the global transition to lead-free electronics,
the majority of the electronic component manufacturers are now using pure tin or tin-rich alloys for
terminal and lead finishes. The increased used of tin based lead-free finishes and materials, focused concern
and research on tin whiskers particular for long life and mission critical applications, such as spac
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surfaces even at room temperature, often in a needle-like form. Oxidation in humid atmosphere, corrosion,

Listing of proceeding of prior International Symposia on Tin Whiskers can be found at
http://www.calce.umd.edu/tin-whiskers/symposia.htm
Contact: CALCE, University of Maryland